file - Wyoming Mineral Corp.

ENGINEERING DESCRIPTION

of

THE BY-PRODUCT URANIUM FROM COPPER-PLANT SOLUTIONS PROCESS

Wyoming Mineral Corporation
3900 W. Wadsworth Blvd.
Lakewood, Colorado 80235

Proprietary Class II

3.0 THE PLANT

The Wyoming Mineral Corporation (WMC) plant will remove uranium from a leach solution containing 7.4 ppm U_3O_8 generated by weathering processes at the Kennecott Copper Mine Dumps. Copper values in the leach solution are presently removed by a cementation plant owned by Kennecott Copper Corporation. This plant processes 46,000 gpm, returning processed leach solution to the mine dumps. The WMC plant will process 6,666 gpm of leach solution that has been processed by the cementation plant.[1] After removing the uranium values, the WMC Uranium Recovery Plant will return the leach solution to the cementation plant circuit.

Uranium is removed from the leach solution using a continuous counter current ion exchange system (Higgins loop) followed by a solvent extraction circuit and precipitation of the uranium as ammonium diuranate. The product is a slurry containing 60 to 65% by weight of solids and will be shipped to a uranium mill for custom drying. Estimated recovery of the uranium values is 72.8 percent with the plant producing 350 lbs. of U_3O_8/day.

3.1 EXTERNAL APPEARANCE OF PLANT

An artist's conception and a layout of the plant are given in Figures 3.1-1 and 3.1-2. Table 3.1-1 lists estimated areas and heights for selected structures. The tallest building will house the Higgins loop and will be interconnected with the building housing the solvent extraction process, storage and plant offices. Additional structures will consist of a fire pump house, water tank, sulfuric acid tank, ammonia storage tank and an electrical substation. In addition, a fuel oil storage tank will be constructed on the plant site but will be buried underground. The building will be finished to harmonize with the surroundings.

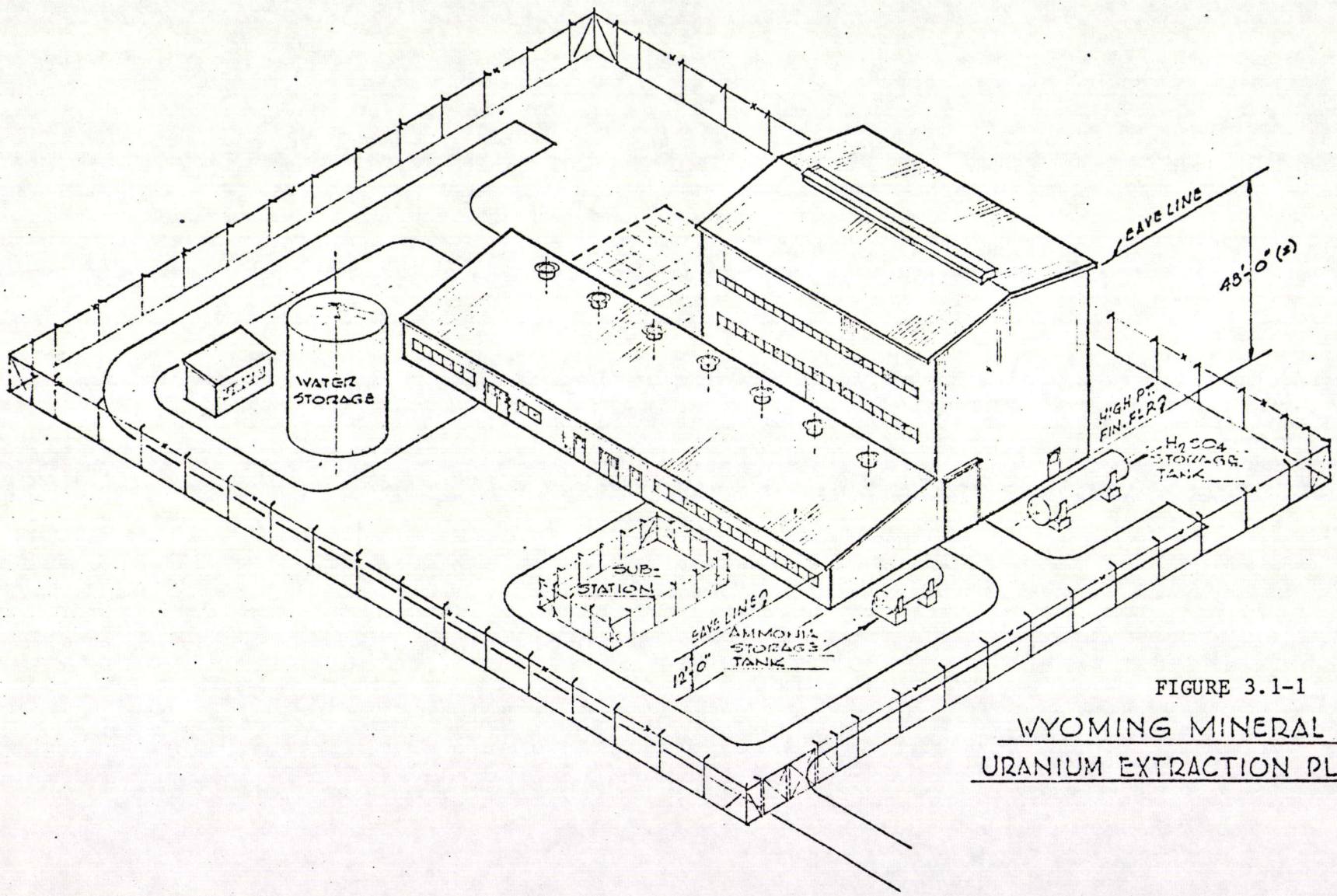

FIGURE 3.1-1

WYOMING MINERAL CORP

URANIUM EXTRACTION PLANT

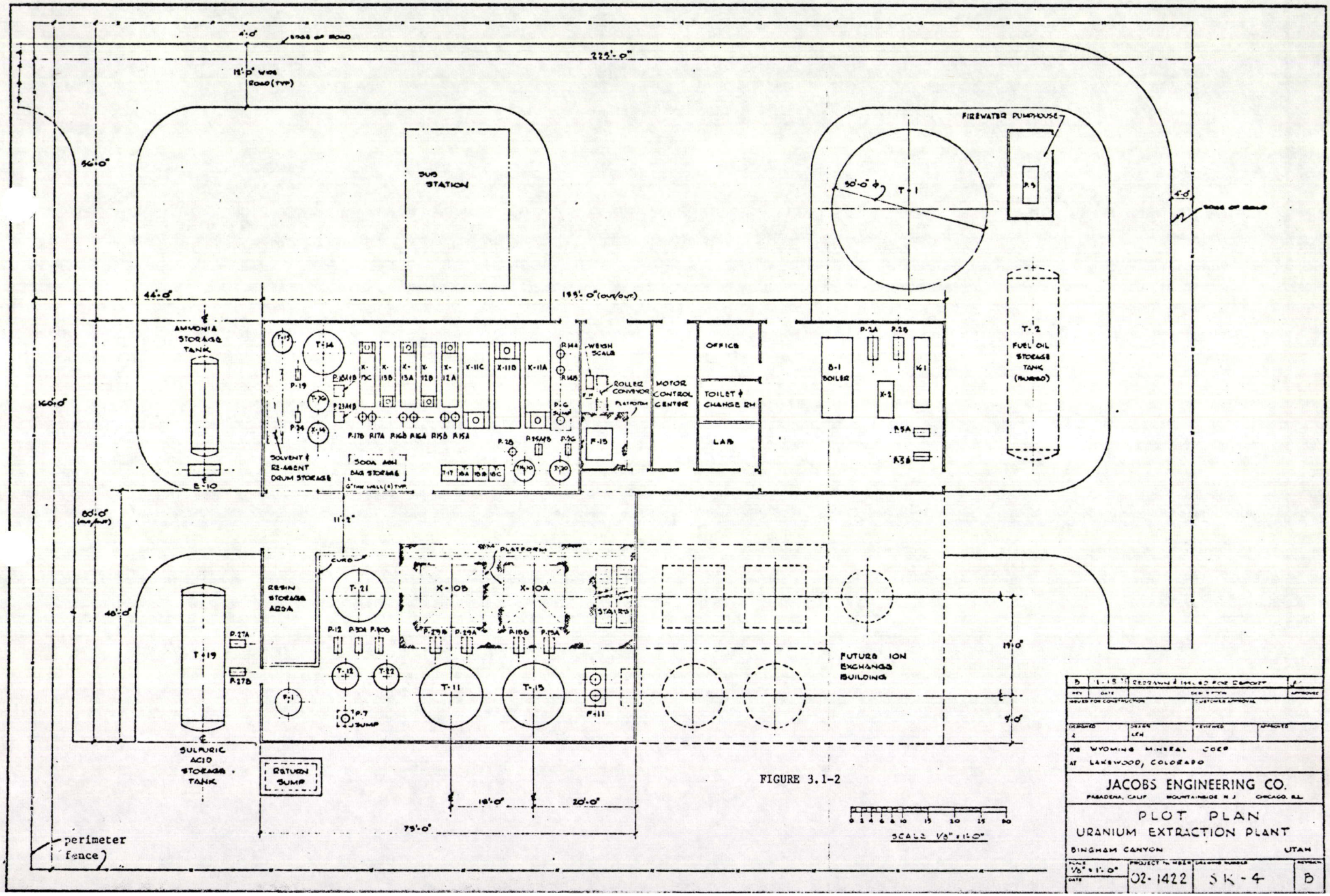

FIGURE 3.1-2

B	1-18-57	REDRAWN & INCLUDED FOR COMPOSIT		
REV	DATE			APPROVED
ISSUED FOR CONSTRUCTION			CUSTOMER APPROVAL	
DESIGNED	DRAWN LEH		REVIEWED	APPROVED

FOR WYOMING MINERAL CORP
AT LAKEWOOD, COLORADO

JACOBS ENGINEERING CO.
PASADENA, CALIF MOUNTAINSIDE N.J CHICAGO, ILL.

PLOT PLAN
URANIUM EXTRACTION PLANT
BINGHAM CANYON UTAH

SCALE	PROJECT NO. NO.	DRAWING NUMBER	REVISION
1/8" = 1'-0"	02-1422	SK-4	B
DATE			

TABLE 3.1-1

ESTIMATED AREA AND HEIGHT OF SELECTED STRUCTURES

	Area	Height
Higgins Loop Section	3460 sq. ft.	48 ft.
Solvent Extraction Section	1920 sq. ft.	12 ft.
Packaging and Drum Storage	400 sq. ft.	12 ft.
Utilities, Office, Lab, etc.	1920 sq. ft.	12 ft.
Fire Pump House	140 sq. ft.	8 ft.
TOTAL	7840 sq. ft.	
Area inside perimeter fence	12544 sq. ft.	